AMENDMENT TRANSMITTAL LETTER (Small Entity)	Docket No.
Applicant(s): Michael Coveley et al	SIM0065

Serial No. 09/367,670	Filing Date October 19, 1999	Examiner David Odland	Group Art Unit 2662

Invention: INTELLIGENT COMMUNICATION SERVER AND COMMUNICATION SYSTEM INCORPORATING SAME

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TO THE ASSISTANT COMMISSIONER FOR PATENTS: Technology Center 2600

Transmitted herewith is an amendment in the above-identified application.

☒   Small Entity status of this application has been established under 37 CFR 1.27 by a verified statement previously submitted.

☐   A verified statement to establish Small Entity status under 37 FR 1.27 is enclosed.

The fee has been calculated and is transmitted as shown below.

	CLAIMS AS AMENDED				
	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST # PREV. PAID FOR	NUMBER EXTRA CLAIMS PRESENT	RATE	ADDITIONAL FEE
TOTAL CLAIMS	27 -	20 =	7	x $9.00	$63.00
INDEP. CLAIMS	5 -	3 =	2	x $42.00	$84.00
Multiple Dependent Claims (check if applicable) ☐					$0.00
TOTAL ADDITIONAL FEE FOR THIS AMENDMENT					$147.00

☐   No additional fee is required for amendment.

☒   Please charge Deposit Account No.   02-0385   in the amount of $147.00
A duplicate copy of this sheet is enclosed.

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☒   The Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No.
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   ☒   Any additional filing fees required under 37 C.F.R. 1.16.

   ☐   Any patent application processing fees under 37 CFR 1.17.

Dated: **February 28, 2003**

_____
Signature

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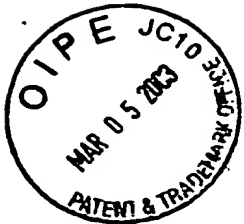Facsimile: 260-460-1700

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I certify that this document and fee is being deposited on 2/28/03   with the U.S. Postal Service as first class mail under 37 C.F.R. 1.8 and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

_____
Signature of Person Mailing Correspondence

John F. Hoffman, Regis. No. 26, 280

Typed or Printed Name of Person Mailing Correspondence

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of)
Applicant: Michael Coveley et al.)
)
Application No.: 09/367,670)
)
Filed: October 19, 1999)
)
For: **INTELLIGENT COMMUNICATION**)
SERVER AND COMMUNICATION)
SYSTEM INCORPORATING SAME)

Group Art Unit: 2662
Examiner: David Odland

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Technology Center 2600

RESPONSE AND AMENDMENT

Assistant Commissioner For Patents
Washington, D.C. 20231
U.S.A.

Sir:

      This is in response to the Official Action dated August 28, 2002 (Examiner's Paper No. 8) issued in respect of the above-identified application. Please amend the application in the following manner:

IN THE TITLE:

      Please delete the title presently on file and insert therefor, the following replacement title:

      Communication Server Including Virtual Gateway to Perform Protocol Conversion and Communication System Incorporating the Same

IN THE DISCLOSURE:

      Please amend the disclosure as follows:

      Please delete the last paragraph on page 2 beginning at line 31 and ending on page 3 at line 2 and insert therefor, the following replacement paragraph:

According to another aspect of the present invention there is provided a communication server to act as a gateway for the transmission of messages between two devices communicating with networks implementing different protocols, said communication server comprising:

Please delete the third paragraph on page 3 and insert therefor, the following replacement paragraph:

a virtual gateway accessing said protocol conversion information upon receipt of a message to be transmitted between said devices and converting the protocol of said message to a protocol compatible with the network to which said message is being sent.

Please delete the fourth paragraph on page 3 and insert therefor, the following replacement paragraph:

In still yet another aspect of the present invention there is provided a communication system comprising:

Please delete the thirteenth paragraph on page 4 and insert therefor, the following replacement paragraph:

Figure 15 shows an OSI model protocol stack and its conversions in a communications path across the communication system of Figure 4.

Please delete the first full paragraph on page 6 and insert therefor, the following replacement paragraph:

The wireless terminals 16 follow a logical model consistent with the communication server 12. The host computers 18 on the other hand do not follow the logical model followed by the wireless terminals 16 and communication server 12. Thus, communications through the communication server 12, between a wireless terminal 16 and a host computer 18, are based on communications between a "known application" and an "unknown host". "Unknown" in the context of the present application refers to the fact that the communication server 12 only knows the basic API levels of the host computers 18. Since the host computers 18 are typically managed by third party institutions, there is little

that can be done to change their API levels to allow them to communicate directly with the wireless terminals 16. Therefore, this poses a potential communications problem especially when a message is transmitted from a host computer 18 that is to be delivered to a wireless terminal 16.

Please delete the first full paragraph on page 8 and insert therefor, the following replacement paragraph:

Wireless terminals 164 communicate with the host computers 140 to 144 and 150 through the communication server 112 over the WPDN 120 and land-line network 122. Likewise the host computers communicate with the wireless terminals 164 over the same communication networks. Wireless terminals 164 also communicate with other wireless terminals 164 via the communication server 112 over the WPDN 120. The host computers also communicate with each other via the communication server 112 over the land-line based network 122.

Please delete the last paragraph on page 9 beginning at line 30 and ending on page 10 at line 5 and insert therefor, the following replacement paragraph:

If connectivity information for the API message exists in the external registry 212, the API message and its connectivity information are passed to the autorouter 214 for processing. In response, the autorouter 214 returns a status message to the message sending component 204 via the message dispatcher 200 and creates a logical message LMSG, which is passed to the appropriate device driver 218 based on the connectivity information via a virtual port 216. The device driver 218 sends the logical message LMSG to the physical output port allowing the logical message to be sent over the WPDN 120.

Please delete the second paragraph on page 10 and insert therefor, the following replacement paragraph:

When an incoming logical message is received on an output port of the wireless terminal 164, the associated device driver 218 passes the incoming logical message LMSG to the check registry 220. The check registry 220 performs filtering and checking of the logical message based on information in the external registry 212 associated with the

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message sending party. If the logical message is not recognized, it is discarded by the check registry 220. During the checking and filtering of a recognized logical message LMSG, the check registry determines whether the logical message is to be processed by the autobridge 214 or conveyed as an API message to the message dispatcher 200. If the logical message is to be processed by the autobridge 214, the check registry 220 conveys the logical message to the autobridge, which in turn routes the logical message to the proper device driver 218. Otherwise, the check registry 220 passes the API message to the message dispatcher 200.

Please delete the first full paragraph on page 11 and insert therefor, the following replacement paragraph:

Turning now to Figure 10, the virtual gateway 284 is better illustrated. Virtual gateway 284 includes a preprocessor 300 receiving input from a virtual device VD (either the virtual host 280 or the virtual terminal 282) that receives logical messages from a sending physical device 14. The preprocessor 300 communicates with the knowledge base 286 and with a processor 302. Processor 302 also communicates with the knowledge base 286 as well as with a postprocessor 304. The postprocessor 304 communicates with the knowledge base 286 and provides output to a virtual device VD (either the virtual host 280 or the virtual terminal 282). The virtual device VD in turn sends a logical message to a receiving physical device 14. An expert system tool kit 306 allows the knowledge base 286 to grow to meet the needs of the communication system 110.

Please delete the third paragraph on page 17 beginning at line 19 and ending on page 18 at line 8 and insert therefor, the following replacement paragraph:

For a host computer to host computer connection through the communication server 112, the source host computer transmits an API message to the communication server 112 without any wrapping. After the API message passes through the virtual terminal 282, the API message as well as the virtual device ID of the virtual terminal 282 is sent to the preprocessor 300. As mentioned previously, the preprocessor attempts to extract the virtual device message header VDMSG_HDR and the logic message header LMSG_HDR from the API message. In this case, the preprocessor 300 recognizes that the API message does not include a virtual message header or a logical message header. The preprocessor 300 in turn